

U.S. Serial No.: 10/601,611
Filed: June 23, 2003
Group Art Unit: 3763
Examiner: Mendez, Manuel A
Atty. Docket No: 22719-42

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An implantable fluid management device, comprising:
a catheter having a proximal end, a distal end, and an inner lumen extending therethrough;
a plurality of fluid entry ports formed in a sidewall of the catheter and in fluid communication with the inner lumen of the catheter; and
a fluid-impermeable barrier coupled to the sidewall and occluding selected fluid entry ports, the barrier being selectively removable with respect to each of the selected fluid entry ports.
2. (Original) The device of claim 1, wherein the barrier is selected from the group consisting of a membrane, a cap, a plug, and a film.
3. (Original) The device of claim 1, further comprising:
a microprocessor coupled to the catheter and effective to selectively control the application of a stimulus to one or more of the barriers to remove the barrier; and
a plurality of conductors effective to carry an electric current, each conductor extending from the microprocessor to one or more of the barriers.
4. (Original) The device of claim 3, wherein the microprocessor is effective to initiate removal of the barrier in response to a signal received from a remote device.
5. (Original) The device of claim 3, further comprising a sensor disposed adjacent to one or more of the selected fluid entry ports, the microprocessor being effective to initiate removal of the barrier upon detection of a particular condition detected by the sensor.
6. (Original) The device of claim 3, wherein the stimulus is an electric current, and the barrier is formed from a material selected from the group consisting of copper, gold, silver, zinc, and conductive polymers or copolymers.
7. (Original) The device of claim 1, wherein the plurality of fluid entry ports are arranged in rows that extend around a diameter of the catheter and that are positioned longitudinally apart from one another, each row including at least one fluid entry port.

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8. (Currently Amended) The device of claim 7, further comprising a microprocessor coupled to the catheter effective to selectively remove the barrier on each fluid entry port in a particular row by controlling the application of a stimulus to the barrier through a plurality of conductors, each conductor extending from the microprocessor to one or more of the barriers.

9. (Original) The device of claim 7, further comprising a plurality of filter members, each filter member extending transversely to a longitudinal axis of the catheter member and being positioned between two rows of fluid entry ports.

10. (Original) The device of claim 1, further comprising a filter material disposed around an inner diameter of the catheter and extending between the proximal and distal ends of the catheter.

11. (Currently Amended) A method of maintaining fluid flow through a catheter, comprising:

~~providing a catheter comprising~~

~~an elongate member having a proximal end, a distal end, and an inner lumen extending therethrough;~~

~~a plurality of fluid entry ports formed in the elongate member and arranged in rows spaced apart from one another along a longitudinal length of the elongate member, each row including at least one fluid entry port;~~

~~a disintegratable barrier extending across selected fluid entry ports;~~

~~a row of barrier free fluid entry ports adjacent the distal end of the elongate member;~~

~~and~~

~~a control member effective to selectively remove the barrier from each of the fluid entry ports;~~

~~detecting a blockage of fluid-flow through the a distal-most barrier-free row of fluid entry ports in a catheter;~~

~~activating the a control member to remove the disintegrate a barrier from a row of fluid entry ports positioned just proximal to the distal-most row of fluid entry ports; and~~

~~repeating the steps of detecting and activating as necessary.~~

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12. (New) The method of claim 11, wherein the control member sends an electric current through a conductor extending between the control member and the barrier when the control member is actuated.
13. (New) The method of claim 12, wherein a microprocessor is coupled to the control member and initiates disintegration of the barrier in response to a signal from a remote device.
14. (New) The method of claim 12, wherein a sensor disposed adjacent to one or more of the fluid ports detects a blockage of fluid-flow and communicates with the microprocessor to initiate disintegration of the barrier.
15. (New) An implantable fluid management device, comprising:
a catheter having a proximal end, a distal end, and an inner lumen extending therethrough;
a plurality of fluid entry ports formed in a sidewall of the catheter and in fluid communication with the inner lumen of the catheter; and
a fluid-impermeable barrier coupled to the sidewall and occluding selected fluid entry ports, the barrier being selectively disintegratable with respect to each of the selected fluid entry ports.